Claims

1. A method for displaying visual content on a client, comprising at the client:

providing an input description of visual content;

generating a first displayable representation from the input description of at least a first portion of the visual content;

generating a second displayable representation of at least a second portion of the visual content;

defining a relationship between the first displayable representation and the second displayable representation;

displaying at least partially the first displayable representation; and

displaying at least partially the second displayable representation in response to a selection from the first displayable representation, the selection corresponding to the relationship between the first displayable representation and the second displayable representation.

2. The method of claim 1 wherein the relationship defined between the first displayable representation and the second displayable representation is a coordinate location in the first displayable representation being mapped to the second displayable representation.

3. The method of claim 1 wherein the relationship defined between the first displayable representation and the second displayable representation is a coordinate region in the first displayable representation being mapped to the second displayable representation.

4. The method of claim 1 wherein the second displayable representation is generated from the input description of at least the second portion of the visual content.

5. The method of claim 1 wherein the second portion of the visual content includes visual content that is common to the first portion of the visual content.

6. The method of claim 5 wherein the first displayable representation is a first pixel region and the second displayable representation is a second pixel region, the first pixel region and the second pixel region having different spatial resolutions.

7. The method of claim 6 further comprising:

performing a transform operation on the first pixel region of the first displayable representation to generate the second pixel region of the second displayable representation.

8. The method of claim 7 wherein performing the transform operation comprises performing a scaling operation on the first pixel region to generate the second pixel region.

9. The method of claim 1 wherein the second displayable representation is a text-based representation.

10. The method of claim 9 wherein the text-based representation is displayed at least partially as an overlay on the first displayable representation.

11. The method of claim 9 wherein the text-based representation is displayed as scrolling text.

12. The method of claim 1 wherein the first displayable representation is generated based on a display attribute of the client.

13. A method of displaying visual content on a client, comprising at the client:

providing an input description of visual content;

generating plural displayable representations of at least portions of the visual content, at least one of the plural displayable representations being generated from the input description;

defining relationships among the plural displayable representations;

displaying at least partially a first displayable representation of the plural displayable representations;

displaying at least partially a second displayable representation of the plural displayable representations in response to a selection from the first displayable representation, the selection corresponding to one of the defined relationships.

14. The method of claim 13 wherein the defined relationships among the plural displayable representations include a coordinate location in the first displayable representation being mapped to the second displayable representation.

15. The method of claim 13 wherein the defined relationships among the plural displayable representations include a coordinate region in the first displayable representation being mapped to the second displayable representation.

16. The method of claim 13 wherein at least one of the displayable representations is a pixel region.

17. The method of claim 13 wherein at least one of the displayable representations is a text-based representation.

18. The method of claim 13 wherein the plural displayable representations are pixel regions having different spatial resolutions.

19. A client display device comprising:

a transformation module generating a first displayable representation from an input description of visual content, the first displayable representation including at least a first portion of the visual content;

the transformation module generating a second displayable representation of at least a second portion of the visual content;

the transformation module defining a relationship between the first displayable representation and the second displayable representation;

a display surface generator displaying at least partially the first displayable representation; and

the display surface generator displaying at least partially the second displayable representation in response to a selection from the first displayable representation, the selection corresponding to the relationship between the first displayable representation and the second displayable representation.

20. The client display device of claim 19 wherein the relationship defined between the first displayable representation and the second displayable representation is a coordinate location in the first displayable representation being mapped to the second displayable representation.

21. The client display device of claim 19 wherein the relationship defined between the first displayable representation and the second displayable representation is a coordinate region in the first displayable representation being mapped to the second displayable representation.

22. The client display device of claim 19 wherein the transformation module comprises:

a rendering module that generates at least the first display representation from the input description of the visual content.

23. The client display device of claim 19 wherein the second portion of the visual content includes visual content that is common to the first portion of the visual content.

24. The client display device of claim 23 wherein the first displayable representation is a first pixel region and the second displayable representation is a second pixel region, the transformation module comprising:

a pixel transform module that generates the second pixel region from the first pixel region, the first pixel region and the second pixel region having different spatial resolutions.

25. The client display device of claim 19 wherein the second displayable representation is a text-based representation.

26. A client display device:

a transformation module generating plural displayable representations of at least portions of visual content, at least one of the plural displayable representations being generated from an input description of the visual content;

the transformation module defining relationships among the plural displayable representations;

a display generator displaying at least partially a first displayable representation of the plural displayable representations; and

the display generator displaying at least partially a second displayable representation of the plural displayable representations in response to a selection from the first displayable representation, the selection corresponding to one of the defined relationships.

27. A method of displaying visual content on a client, comprising:

providing plural rendering servers, each of the plural rendering servers being capable of rendering one or more components of a visual content element into corresponding graphical representations;

receiving a client request for a component of the visual content element;

instructing a first rendering server of the plural rendering servers to render the component of the visual content element into a graphical representation; and

transmitting the graphical representation to the client for display.

28. The method of claim 27 further comprising:

executing a rendering service function to render the component of the visual content element into the graphical representation, the rendering service function being executed solely on the first rendering server in order to reduce susceptibility of a computer virus contained within the component to other systems.

29. The method of claim 27 further comprising:

communicating with the first rendering server through restricted communication channels in order to reduce susceptibility of a computer virus contained within the component to other systems.

30. The method of claim 27 further comprising:

instructing a second rendering server of the plural rendering servers to render the component of the visual content element into the graphical representation if the first rendering server fails to respond.

31. A visual content display system, comprising:

a client device;

plural rendering servers, each of the plural rendering servers being capable of rendering one or more components of a visual content element into corresponding graphical representations;

a content server receiving a request from the client device for a component of the visual content element;

the content server instructing a first rendering server of the plural rendering servers to render the component of the visual content element into a graphical representation; and

the content server transmitting the graphical representation to the client device for display.

32. The system of claim 31 wherein the first rendering server executes a rendering service function to render the component of the visual content element into the graphical representation, the rendering service function being executed solely on

the first rendering server in order to reduce susceptibility of a computer virus contained within the component to other systems.

33. The system of claim 31 wherein the visual content server communicates with the first rendering server through restricted communication channels in order to reduce susceptibility of a computer virus contained within the component to other systems.

34. The system of claim 31 wherein the visual content server instructs a second rendering server of the plural rendering servers to render the component of the visual content element into the graphical representation if the first rendering server fails to respond.